
Remarks / Arguments & Status

The application presently contains the following claims:

<i>Independent Claim #</i>	<i>Dependent Claim #s</i>
1 (withdrawn)	2-12 (withdrawn)
13	14-19, 36-40
20	21-26, 41-45
27 (withdrawn)	28-35 (withdrawn)
46	47-51 (new)

Claims 13, 20 and 46 are amended, claims 1-12 and 27-35 have been previously withdrawn and claims 47-51 are newly added. Support for the amendments and new claim can be found with reference to Tables I and 2 as originally filed as well as with reference to Figures 1-5 as originally filed. Specific support for claim #51 can be found with reference to DB 4000, DB 4300 in Table 1 as well as Compositions B and E (2nd occurrence) in Table 2.

35 U.S.C. §112 Rejection & Responsive Arguments

The examiner has rejected claims 13-26 and 36-46 under this section, first paragraph as based on a disclosure which is not enabling. The examiner has identified that the claims failed to recite specifically to what the chlorinated resin is added and what was being referred to by the range. Through amendment, the predicate for this rejection is respectfully submitted to have been overcome.

The examiner has additionally rejected the same claims identified in the previous paragraph under this section, first paragraph as being enabling for chlorinated paraffin waxes. Through amendment, the predicate for this rejection is respectfully submitted to have been overcome.

The examiner has additionally rejected the same claims identified in the previous paragraphs under this section, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The examiner was unclear as to what the approximately 0.1 to 10% by weight of a chlorinated resin was referring to. Through amendment, the predicate for this rejection is respectfully submitted to have been overcome.

35 U.S.C. §103 Rejection & Responsive Arguments

The examiner has rejected claims 13-26 and 36-46 under this section, subparagraph (a) as being unpatentable over Edwards et al. (US 4,659,754), Castagna et al., (US 5,075,359), Fujita et al. (US 4,737,532), or Hendrickson et al. (US 6,682,814), all newly cited.

The examiner has thoughtfully reconsidered his position vis-à-vis the previously cited references and concluded that the claims distinguished over the prior art of record. However, the examiner has concluded that the references described in the previous paragraph render the invention of the application obvious. Through amendment, the predicate for this rejection is respectfully submitted to have been overcome.

Edwards et al. ('754) does discuss polymer – fiber mixtures in which a plasticizer may be a paraffinic oil. It teaches nothing about physical properties of any resulting polymer composite. It is completely silent as to how it would be possible to achieve the highly desirable characteristics of increasing production of product by reducing extruder torque while at least maintaining flexural modulus and/or increasing tensile strength of the final composite as present in the claims:

“said addition of said paraffin wax chlorinated resin reducing extruder torque during processing while essentially maintaining flexural modulus of said extruded composite and increasing tensile strength of said extruded composite, said properties compared to a composite without any added chlorinated paraffin wax resin.”

As clearly shown in Table 1, the substitution of a known standard lubricant as identified in the first column, with the chlorinated paraffin wax resin of the applicant's invention does not result in the invention. In fact, as clearly shown in Figs. 1-3, while flexural modulus (Fig. 2) and tensile strength (Fig. 3) are improved for DB 1000, the extruder torque also increases as shown in Fig. 1. This is not a workable combination. In Table 1, only DB 4000 and DB 4300 meet the above criteria. In Table 2, only formulation B and E (2nd occurrence) meet the requisite criteria in comparison to the standard defined in the first column.

In a manner similar to that explained above, the Castagna et al., ('359) reference does provide any teachings on how to incorporate a paraffin wax chlorinated resin to achieve the above characteristics, and therefore cannot render them obvious. All that is taught is that polymer additives, which may include waxy or low melting solids can be used in conjunction with wood fluff pulp with various polymers. There is no teaching of how to increase production of product by reducing extruder torque while at least maintaining flexural modulus and/or increasing tensile strength of the final composite as present in the claims:

“said addition of said paraffin wax chlorinated resin reducing extruder torque during processing while essentially maintaining flexural modulus of said extruded composite and increasing tensile strength of said extruded composite, said properties compared to a composite without any added chlorinated paraffin wax resin.”

Similar considerations apply to Fujita et al. ('532) and Hendrickson et al. ('814) which simply teach the combination of vinyl chloride (Fujita) or thermoplastic (Hendrickson) polymers and wood flour. The Dover inventors have found a novel and unobvious method by which product production can be increased without sacrificing product physical properties, and at a cost which is attractive to the manufacturer. It is always possible to find an expensive solution, but not quite so easy to find an inexpensive solution.

Request for Reconsideration

Applicant believes that all independent claims clearly define over the prior art and that the distinctions between the present invention and the prior art would not have been obvious to one of ordinary skill in the art. Additionally, the remaining dependent claims, (including withdrawn dependent claims pursuant to the restriction and species election requirement) by the limitations contained in the base independent claims, are felt to be patentable over the prior art by virtue of their dependency from independent claims which distinguish over the prior art of record. All pending claims are thought to be allowable and reconsideration by the Examiner is respectfully requested.

It is respectfully submitted that no combination of references teach this invention as claimed. It is also submitted that no new additional searching will be required by the examiner. The use of chlorinated wax in wood filled composites (with or without other fillers such as talc) improve reactor throughput and yet still maintain good physical properties. Throughput can be improved even more using a processing aid. However, the value of this invention is that even if a processing aid is used (which typically decreases physical properties), when the chlorinated wax is employed, these physical properties are at least maintained, and often improved. No prior art reference which the examiner has brought to bear on the patentability of this invention has taught that facet.

Fee Determination Record

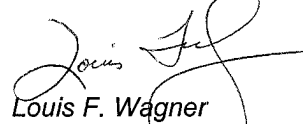
A fee determination sheet is attached for this amendment response. The Commissioner is hereby authorized to charge any additional fee required to effect the filing of this document to Account No. 50-0983.

Conclusion

It is respectfully submitted that all references identified by the examiner have been distinguished in a patentably novel and non-obvious way. If the examiner believes that a telephonic conversation would facilitate a resolution of any and/or all of the outstanding issues pending in this application, then such a call is cordially invited at the convenience of the examiner.

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Respectfully Submitted,
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